

We Claim:

1. In a method for generating a channel-coded and subscriber-coded message signal in a transmitter, the transmitter having a coding device for receiving a message signal represented by a sequence of data symbols, for channel-coding the received message signal using a channel code, and for subscriber-coding the message signal with a specific subscriber code selected from a plurality of available subscriber codes, and for emitting a channel-coded and subscriber-coded message signal to be transmitted, the method which comprises selecting the subscriber code such that an overall code formed from the channel code and the selected, specific subscriber code has a maximum Hamming distance.

2. The method according to claim 1, which comprises generating message signals for a mobile radio transmitter.

3. The method according to claim 1, wherein the channel coder is enabled to generate channel codes at a variable code rate R , and the method comprises selecting the specific subscriber code and the code rate R for the channel code that is used such that the Hamming distance of the overall code formed from the channel code and subscriber code is a maximum.

4. The method according to claim 1, wherein the channel coder is enabled to generate different code types, and the method comprises selecting the specific subscriber code and the type code of the channel code that is used such that the Hamming distance of the overall code formed from the channel code and the subscriber code is a maximum.

5. The method according to claim 4, wherein the channel coder is enabled to generate at least one of the code types selected from the group consisting of block codes, convolution codes, parallel concatenated convolution codes, serial concatenated convolution codes, and block codes and turbo codes.

6. The method according to claim 1, which comprises selecting the specific subscriber code as a function of the service to be transmitted.

7. The method according to claim 1, which comprises using a DS-CDMA spread coding as the subscriber coding.

8. The method according to claim 1, which comprises using a MC-CDMA spread coding as the subscriber coding.

9. In a transmitter, a method of generating a channel-coded and subscriber-coded message signal, which comprises:

receiving, with a coding device of the transmitter, a sequence of data symbols representing a message signal;

channel-coding the message signal using a channel code and subscriber-coding the message signal with a specific subscriber code and thereby selecting the subscriber code from a plurality of available subscriber codes such that an overall code formed from the channel code and the selected subscriber code has a maximum Hamming distance; and

emitting a channel-coded and subscriber-coded message signal to be transmitted by the transmitter.

10. A device for generating a channel-coded and subscriber-coded message signal in a transmitter, comprising:

a coding device configured to receive a sequence of data symbols representing a message signal and to emit a channel-coded and subscriber-coded message signal to be transmitted;

said coding device having

a channel coder for channel-coding the message signal using a channel code; and

a subscriber coder for subscriber-coding the message signal using a specific subscriber code selected from a number of available subscriber codes;

wherein the specific subscriber code is selected from the available subscriber codes such that a resulting overall code formed from the channel code and the selected subscriber code has a maximum Hamming distance.

11. The device according to claim 10, wherein said coding device is incorporated in a mobile radio transmitter.

12. The device according to claim 10, wherein said channel coder is configured to generate a channel code with a variable code selected from the group consisting of a variable code rate and a variable code type; and the specific subscriber code and the variable code are selected to result in the overall code formed from the channel code and the selected subscriber code to have a maximum Hamming distance.

13. The method according to claim 10, wherein the subscriber code is a DS-CDMA spread code.

14. The method according to claim 10, wherein the subscriber code is an MC-CDMA spread code.